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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,406	12/28/2000	Gregory W. Gough	SBC 0102 PUS	6917
7590	02/14/2005		EXAMINER	
Robert P. Renke ARTZ & ARTZ, P.C. 28333 Telegraph, Suite 250 Southfield, MI 48034			HAROLD, JEFFEREY F	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/750,406	GOUGH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jefferey F Harold	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 28 December 2000.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4,7-10,12,13 and 15-19 is/are rejected.  
 7) Claim(s) 5,11,14 and 20 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. ***Claim 1-4, 7-10, 12, 13, and 15-19*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai (United States Patent 5,623,514) in view of well known prior art (MPEP 2144.03).

Regarding **claim 1**, Arai discloses an IC card type modem and method for communicating data. In addition Arai discloses hybrid circuit in operative communication with a transmission line and a modem associated with a subscriber premises, the hybrid circuit comprising a plurality of selectable impedance circuits; and a switch for connecting each of the plurality of selectable impedance circuits in-line with the modem and the transmission line in response to a control signal, as disclosed at column 5, line 57 through column 6, line 54. However, Arai fails to disclose an XDSL modem. However, the examiner takes official notice of the fact that it was well known in the art to provide an XDSL modem.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Arai by specifically providing an XDSL modem, for the purpose of dual band communication.

Regarding **claim 2**, Arai and well known art discloses everything claimed as applied above (see claim 1), in addition, Arai discloses the matching selection unit (42) which reads on “controller” for producing the control signal as a function of impedance, which reads on “a performance characteristic” associated with each of said impedance circuits, as disclosed at column 5, line 57 through column 6, line 54.

Regarding **claim 3**, Arai and well known art discloses everything claimed as applied above (see claim 1), in addition, Arai discloses a plurality of impedance elements 16-1 – 16-4 for matching impedance which reads on “selectable impedance circuits equals four”, as disclosed at column 5, line 57 through column 6, line 54.

Regarding **claim 4**, Arai and well known art discloses everything claimed as applied above (see claim 1), in addition, Arai inherently discloses wherein one of the plurality of impedance circuits has an impedance value equal to a characteristic line impedance of the transmission line without a bridged.

Regarding **claim 6**, Arai and well known art discloses everything claimed as applied above (see claim 2), in addition, Arai inherently discloses wherein the performance characteristic is a data transmission rate and the control signal corresponds to the respective impedance circuit associated with the highest data transmission value. The selector determines the best matching element to match the impedance thus the best line characteristics exist which results in the best data transmission rate.

Regarding claims **7-10, 12, 13, and 15-19**, they are interpreted and thus rejected for the reasons set forth above in the rejection of claims 1-4 and 6.

***Allowable Subject Matter***

2. ***Claims 5, 11, 14 and 20*** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F Harold whose telephone number is 703-306-5836. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jefferey F Harold  
Examiner  
Art Unit 2644



JFH  
February 7, 2005